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a transmitting SAW filter formed on the substrate the transmitting SAW filter having a first serial arm resonator and a first parallel arm resonator, the first serial arm resonator being connected to the first parallel arm resonator; and

filter

a receiving SAW filter formed on the substrate, the receiving SAW<sub>1</sub> having a second serial arm resonator and a second parallel arm resonator and a second parallel arm resonator, the second serial arm resonator being connected to the second parallel arm resonator.

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12 13. A single chip device according to claim 12, further comprising:  
a branching filter circuit formed on the substrate so as to be connected to the transmitting and receiving SAW filters.

13 14. A single chip device according to claim 13, wherein the branching filter circuit is composed of a third serial arm resonator.

14 15. A single chip device according to claim 13, further comprising:  
a frequency adjusting circuit formed on the substrate so as to be connected with the branching filter circuit.

15 16. A single chip device according to claim 15, wherein the frequency adjusting circuit has an inductance element and a capacitance element.

<sup>16</sup>~~17~~. A single chip device including a plurality of surface acoustic wave filters, the single chip device comprising:

a transmitting SAW filter having a first serial arm resonator and a first parallel arm resonator, the first serial arm resonator being connected with the first parallel arm resonator;

a receiving SAW filter having a second serial arm resonator and a second parallel arm resonator, the second serial arm resonator being connected with the second parallel arm resonator; and

a common piezoelectric substrate on which both of the transmitting SAW filter and the receiving SAW filter are formed.

<sup>17</sup>~~18~~. A single chip device according to claim <sup>16</sup>~~17~~, further comprising:

a branching filter circuit being formed on the common piezoelectric substrate so as to be connected with the transmitting and receiving SAW filters.

<sup>18</sup>~~19~~. A single chip device according to claim <sup>17</sup>~~18~~, wherein the branching filter circuit is composed of a third serial arm resonator.

<sup>19</sup>~~20~~. A single chip device according to claim <sup>17</sup>~~18~~, further comprising:  
a frequency adjusting circuit being formed on the common piezoelectric substrate so as to be connected with the branching filter circuit.

<sup>20</sup>21. A single chip device according to claim <sup>19</sup>~~20~~, wherein the frequency adjusting circuit has an inductance element and a capacitance element.

<sup>21</sup>22. A surface acoustic wave duplexer having an antennal terminal, a transmitting terminal and a receiving terminal, comprising:

a transmitting SAW filter coupled between the antenna terminal and the transmitting terminal;

a receiving SAW filter coupled between the antenna terminal and the receiving terminal;

a common piezoelectric substrate on which both of the transmitting SAW filter and the receiving SAW filter are formed; and

a package covering the common piezoelectric substrate, wherein the antenna terminal, the transmitting terminal and the receiving terminal are formed on the package.

<sup>22</sup>23. A surface acoustic wave duplexer according to claim <sup>21</sup>~~22~~, further comprising:  
a branching filter circuit coupled between the antenna terminal and the transmitting SAW filter or the receiving SAW filter.

<sup>23</sup>24. A surface acoustic wave duplexer according to claim <sup>22</sup>~~23~~, wherein the branching filter circuit is composed of a serial arm resonator.

<sup>24</sup><sub>25</sub> A surface acoustic wave duplexer according to claim <sup>22</sup><sub>23</sub>, wherein the branching filter circuit is formed on the common piezoelectric substrate with the transmitting and receiving SAW filters.

<sup>25</sup><sub>26</sub> A surface acoustic wave duplexer according to claim <sup>22</sup><sub>23</sub>, wherein the package has a multi-layer structure.

B1 cont <sup>26</sup><sub>27</sub> A surface acoustic wave duplexer according to claim <sup>25</sup><sub>26</sub>, wherein the branching filter circuit is formed on the package.

sub C2 <sup>27</sup><sub>28</sub> A surface acoustic wave duplexer according to claim <sup>25</sup><sub>26</sub>, wherein the package has a first layer substrate and a second layer substrate, the first layer substrate is disposed on the second substrate, and the branching filter circuit is formed on the first layer substrate or the second layer substrate.

<sup>28</sup><sub>29</sub> A surface acoustic wave duplexer according to claim <sup>22</sup><sub>23</sub>, further comprising: a frequency adjusting circuit being coupled between the antenna terminal and the branching filter circuit.

sub C3 <sup>29</sup><sub>30</sub> A surface acoustic wave duplexer according to claim <sup>28</sup><sub>29</sub>, wherein the frequency adjusting circuit has an inductance element and a capacitance element.

sub C3  
30/31. A surface acoustic wave duplexer according to claim <sup>28</sup>29, wherein the frequency adjusting circuit is formed on the common piezoelectric substrate together with the branching filter circuit.

31/32. A surface acoustic wave duplexer according to claim <sup>28</sup>29, wherein the package has a multi-layer structure.

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32/33. A surface acoustic wave duplexer according to claim <sup>31</sup>32, wherein the frequency adjusting circuit is formed on the package.

33/34. A surface acoustic wave duplexer according to claim <sup>31</sup>32, wherein the package has a first layer substrate and a second layer substrate, the first layer substrate is disposed on the second substrate and the frequency adjusting circuit is formed on the first layer substrate or the second layer substrate.

34/35. A surface acoustic wave duplexer having an antenna terminal, a transmitting terminal and a receiving terminal, comprising:

a SAW filter chip including a transmitting SAW filter connected with the transmitting terminal and a receiving SAW filter connected with the receiving terminal, wherein both the transmitting SAW filter and the receiving SAW filter are formed on one common piezoelectric substrate;

a package covering the one common piezoelectric substrate, wherein the antenna terminal, the transmitting terminal and the receiving terminal are formed on the package.

Concluded  
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36. A surface acoustic wave duplexer according to claim 35, further comprising:  
a branching filter circuit being coupled between the antenna terminal and the  
transmitting SAW filter or the receiving SAW filter.

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37. A surface acoustic wave duplexer according to claim 36, wherein the  
branching filter circuit is composed of a serial arm resonator.

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38. A surface acoustic wave duplexer according to claim 36, wherein the  
branching filter circuit is formed on the common piezoelectric substrate with the  
transmitting and receiving SAW filters.

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39. A surface acoustic wave duplexer according to claim 35, wherein the package  
has a multi-layer structure.

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40. A surface acoustic wave duplexer according to claim 39, wherein the  
branching filter circuit is formed on the package.

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41. A surface acoustic wave duplexer according to claim 39, wherein the package  
has a first layer substrate and a second layer substrate, the first layer substrate being  
disposed on the second substrate, and the branching filter circuit is formed on the first  
layer substrate or the second layer substrate.

<sup>41</sup>42. A surface acoustic wave duplexer according to claim <sup>35</sup>~~36~~, further comprising:  
a frequency adjusting circuit being coupled between the antenna terminal and the  
branching filter circuit.

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Concl.* <sup>42</sup>43. A surface acoustic wave duplexer according to claim <sup>41</sup>~~42~~, wherein the  
frequency adjusting circuit has an inductance element and a capacitance element.

<sup>43</sup>44. A surface acoustic wave duplexer according to claim <sup>41</sup>~~42~~, wherein the  
frequency adjusting circuit is formed on the common piezoelectric substrate with the  
branching filter circuit.

<sup>44</sup>45. A surface acoustic wave duplexer according to claim <sup>41</sup>~~42~~, wherein the package  
has a multi-layer structure.

<sup>45</sup>46. A surface acoustic wave duplexer according to claim <sup>44</sup>~~45~~, wherein the  
frequency adjusting circuit is formed on the package.

<sup>46</sup>47. A surface acoustic wave duplexer according to claim <sup>44</sup>~~45~~, wherein the package  
has a first layer substrate and a second layer substrate, the first layer substrate being  
disposed on the second substrate, and the frequency adjusting circuit is formed on the  
first layer substrate or the second layer substrate.